

REMARKS

Claims 1 and 4-11 are pending in the application. In the Office Action of April 14, 2005, the Examiner made the following disposition:

- A.) Rejected claims 1 and 4-11 under 35 U.S.C. §112, first paragraph.
- B.) Rejected claims 1, 5, 6, and 11 under 35 U.S.C. §103(a) as being unpatentable over *Chaloner-Gill* in view of *Bullock et al.*
- C.) Rejected claims 7-10 under 35 U.S.C. §103(a) as being unpatentable over *Chaloner-Gill* in view of *Bullock* and further in view of *Kamauchi et al.*
- D.) Rejected claim 4 under 35 U.S.C. §103(a) as being unpatentable over *Chaloner-Gill* in view of *Bullock* and further in view of *Wedlake*.

Applicants respectfully traverse the rejections and address the Examiner's disposition below.

A.) Rejection of claims 1 and 4-11 under 35 U.S.C. §112, first paragraph:

Claim 1 has been amended as per the Examiner's request to overcome the rejection. Support for claim 1, as amended, can be found on page 19, line 11, of the specification.

Applicants respectfully submit the rejection has been overcome and request that it be withdrawn.

B.) Rejected claims 1, 5, 6, and 11 under 35 U.S.C. §103(a) as being unpatentable over *Chaloner-Gill* in view of *Bullock et al.*

Applicants respectfully disagree with the rejection.

Claim 1 has been amended to claim that the battery element is a winding type gel electrolyte battery element. Claims 7, 8, and 10 have been amended to correct informalities.

Referring to Applicants' Figures 1-3 for illustrative purposes, claim 1, as amended, claims a battery element contained in an outer covering member composed of a laminated film and sealed therein by heat seal. The battery element has a positive electrode 4 and a negative electrode 3 each having a gel electrolyte at a portion thereof, the portions of the positive and negative electrodes being laminated to each other and pressed and wound such that the battery element is a winding type gel electrolyte battery element.

A gas absorbable material and resin material are interposed between an outermost layer of the outer covering member and the battery element. The gas absorbable material is one of molecular sieve and silica gel. A content of the gas absorbable material is in a range of 0.1wt% to 95wt% on a basis of a weight of the resin material. The gas absorbable material and the resin

material has a thickness in a range of 1 μm to 500 μm .

A first gas absorbable member is positioned at a first side of the battery element. A second gas absorbable member is positioned at a second side of the battery element opposite the first side. The laminated film has a first outer covering member and a second outer covering member, the first outer covering member and the second outer covering member being a single common piece of material. The first outer covering member has a preformed recess accommodating the battery element. The second outer covering member extends from one side of the first outer covering member and is folded onto the first outer covering member covering the battery element and the preformed recess.

Thus, Applicants' claimed gas absorbable material has a thickness in a range of 1 μm to 500 μm . As discussed in Applicants' specification, if the thickness is more than 500 μm , a loss of volume energy density becomes larger, and if the thickness is less than 1 μm , the formation of the gas absorbable material becomes difficult. (Specification, page 16, lines 10-16).

This is clearly unlike *Chaloner-Gill* in view of *Bullock*, which fails to disclose or suggest Applicants' claimed winding type gel electrolyte battery element. *Chaloner-Gill* teaches a gas absorbable material that can be used with a battery, but fails to disclose or suggest a winding type gel electrolyte battery element. *Bullock* also fails to disclose or suggest a winding type gel electrolyte battery element, and instead discloses a lead-acid battery.

Therefore, for at least this reason, *Chaloner-Gill* in view of *Bullock* fails to disclose or suggest claim 1.

Claims 5, 6, and 11 depend directly or indirectly from claim 1 and are therefore allowable for at least the same reasons that claim 1 is allowable.

Applicants respectfully submit the rejection has been overcome and request that it be withdrawn.

C.) Rejected claims 7-10 under 35 U.S.C. §103(a) as being unpatentable over *Chaloner-Gill* in view of *Bullock* and further in view of *Kamauchi et al.*

Applicants respectfully disagree with the rejection.

Applicants' independent claim 1 is allowable over *Chaloner-Gill* in view of *Bullock et al.* as discussed above. *Kamauchi* still fails to disclose or suggest Applicants' claimed winding type gel electrolyte battery element. Instead, *Kamauchi* teaches a battery element having a coin form. (Col. 3, line 66). Therefore, *Chaloner-Gill* in view of *Bullock et al.* and further in view of *Kamauchi* still fails to disclose or suggest claim 1.

Claims 7-10 depend directly or indirectly from claim 1 and are therefore allowable for at least the same reasons that claim 1 is allowable.

Applicants respectfully submit the rejection has been overcome and request that it be withdrawn.

D.) Rejection of claim 4 under 35 U.S.C. §103(a) as being unpatentable over *Chaloner-Gill* in view of *Bullock* and further in view of *Wedlake*:

Applicants respectfully disagree with the rejection.

Applicants' independent claim 1 is allowable over *Chaloner-Gill* in view of *Bullock et al.* as discussed above. *Wedlake* still fails to disclose or suggest Applicants' claimed winding type gel electrolyte battery element. Instead, *Wedlake* teaches an electrochemical cell. (*Wedlake* Figure 1). Therefore, *Chaloner-Gill* in view of *Bullock et al.* and further in view of *Wedlake* still fails to disclose or suggest claim 1.

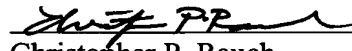
Claim 4 depends directly or indirectly from claim 1 and is therefore allowable for at least the same reasons that claim 1 is allowable.

Applicants respectfully submit the rejection has been overcome and request that it be withdrawn.

CONCLUSION

In view of the foregoing, it is submitted that claims 1 and 4-11 are patentable. It is therefore submitted that the application is in condition for allowance. Notice to that effect is respectfully requested.

Respectfully submitted,

 (Reg. No. 45,034)
Christopher P. Rauch
SONNENSCHNEIN, NATH & ROSENTHAL LLP
P.O. Box #061080
Wacker Drive Station - Sears Tower
Chicago, IL 60606-1080
Telephone 312/876-2606
Customer #26263
Attorneys for Applicant(s)